



TESTIMONY OF
THE WATER RESOURCES COALITION
BEFORE THE
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE
U.S. HOUSE OF REPRESENTATIVES
ON
THE WATER RESOURCES DEVELOPMENT ACT OF 2007:
A REVIEW OF IMPLEMENTATION IN ITS THIRD YEAR
MARCH 3, 2010

Mr. Chairman and Members of the Committee:

Good morning. My name is Brian Pallasch. I am co-chair of the Water Resources Coalition (WRC), and I am pleased to appear before you today as the committee examines the administration's implementation of the Water Resources Development Act of 2007.

We hope that this will be the first of many vigorous oversight hearings on the Corps of Engineers and its programs, which are critical to national defense, economic security, and environmental health.

WRC was established in 2007 to promote the development, implementation and funding of a comprehensive national water resources policy. It represents state and local governments, conservation, engineering and construction industries, ports, waterways and transportation services. WRC works to ensure that a comprehensive, national water resources policy is developed and funded to provide a sustainable, productive economy; healthy aquatic ecology, and public health and safety.

improve, prevent, save
www.waterresourcescoalition.org

ASCE
101 Constitution Ave., NW
Ste. 375 East
Washington, DC 20001
202-789-7850 (ASCE)

AGC
2300 Wilson Boulevard
Suite 400
Arlington, VA 22201
703-837-5435 (AGC)

The Coalition's members are the American Council of Engineering Companies; the American Public Works Association; the American Shore and Beach Preservation Association; the American Society of Civil Engineers; the Association of California Water Agencies; the Associated Equipment Distributors; the Associated General Contractors of America; the Atlantic Intracoastal Waterway Association; the Coast Builders Association; the Dredging Contractors of America; the Everglades Trust; the Florida Inland navigation District; the Missouri Corn Growers Association; the National Association of Regional Councils; the National Sand, Stone and Gravel Association; the Oregon Water Resources Congress; and the Upper Mississippi, Illinois and Missouri Rivers Association.

I. GENERAL OBSERVATIONS ON WRDA 2007

The U.S. Army Corps of Engineers (USACE) has made progress implementing WRDA 2007, but the process has been slow in places. The agency also put up procedural roadblocks to a fully transparent process.

In January 2009, shortly before the present administration took office, the Corps of Engineers disabled virtually its entire site on the Internet. The Corps removed many Internet pages dedicated to the development of WRDA implementation. This made it extremely difficult for interested parties to assess the actual progress toward completion of the law's many requirements. Lately, however, some of the data have reappeared on the Corps site.

Most importantly, title II of WRDA 2007 contained key policy requirements for the Corps to complete on independent peer review, dredged material disposal, technical assistance, access to water data, planning, shore protection projects, and other program requirements.

The Act contained 47 sections with 57 new policy tasks for the Corps. In its latest implementation guidance posted on the Internet,¹ the Corps reports that it has completed issuing guidance for 27 specific policy requirements in the Act—47 percent of the required workload.

II. ECONOMIC AND ENVIRONMENTAL PRINCIPLES AND GUIDELINES FOR WATER AND RELATED LAND RESOURCES IMPLEMENTATION STUDIES

In July 2009, the White House Council on Environmental Quality (CEQ) released for public comment its version of a document to revise and expand the scope of the "Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies," issued in 1983. The document is commonly known as the "Principles and Guidelines" or "P&G."

¹ The Corps report can be found at http://www.usace.army.mil/CECW/Documents/cecwp/leg_manage/wrda2007/wrda07_imp.pdf.

The proposal was required by section 2031 of WRDA 2007. Congress directed that it be carried out by the Secretary of the Army, but the CEQ announced in 2009 that it was overseeing the revisions. The CEQ notice stated that the administration “is considering developing uniform planning standards for the development of water resources that would apply governmentwide, including agencies other than the traditional water resources development agencies covered under the current Principles and Guidelines.”

The 2009 proposal calls for the development of water resources projects to be based on the best available science, greater consideration of non-monetary benefits to select a project, improved transparency, and consideration of non-structural approaches that can solve the flooding problem without adversely impacting floodplain functions. The proposal would also expand the scope of the Principles and Guidelines to cover all federal agencies that undertake water resource projects.

The proposed revision recommends 13 “planning principles” for all federal agencies to observe when designing and constructing projects that could affect U.S. water resources. Among them are requirements to protect and restore natural ecosystems and the environment while encouraging sustainable economic development; to “account for ecosystem services”; to “account for the benefits and costs in appropriate monetary and non-monetary terms”; and to “incorporate public safety.”

The WRC believes the current proposal needs to be reworked.

A. The proposal speaks to the need to “incorporate public safety” into the planning process, but it does not contain any discussion of obvious ways to achieve the goal. Specifically, nothing in the proposal identifies the unequivocal need for resiliency in the design and construction of federal civil engineering projects.

In engineering terms, resiliency is the ability of an infrastructure system to recover its function after it is damaged by a natural disaster or a terrorist attack.

Sustainability and resiliency must be an integral part of improving the nation’s infrastructure. Today’s infrastructure—especially flood control systems—must be able to respond to, and change with, dynamic conditions.

Infrastructure systems are designed to protect and improve the natural environment and carry on even after natural or man-made disasters. Resilience, implemented through a risk-management approach, can be built into infrastructure systems by taking a comprehensive approach at identifying potential hazards; assessing the likelihood of occurrence; identifying methods of recovery; recognizing system interdependencies and critical connections; and encouraging ongoing training and research for engineers and owners of infrastructure.

By taking these steps, disasters will pose less of a threat to public health and will minimize disruptions to our economy. The federal government has a clear duty to

provide infrastructure systems that will last for future generations, and the guidelines need to reflect the paramount importance of infrastructure resiliency.

Although the proposal correctly identifies structural and non-structural methods (including political and legal policies designed to shift human behavior in favor of greater safety measures), the revision does not recognize an inherent weakness in nonstructural approaches to ecosystem engineering, namely the ability of people to accept far greater risks for themselves and their property than government generally condones. This needs to be discussed more fully in the guidelines.

B. The proposal’s discussion of the use of cost-benefit analyses (CBA) in the development of water-resources projects is flawed. The CEQ needs to explain in some detail how it will require CBA to be employed, especially how it will be possible to monetize the social or environmental benefits of projects and how these benefits can be compared to economic benefits and public safety.

Similarly, we are concerned with the effort to monetize new welfare “benefits” to society. This appears to be a somewhat a risky undertaking when it comes to deciding on the value of economic development versus environmental benefits.

CBA seeks to instruct current decisionmaking processes. It is ill suited to informing contemporary policymakers about intergenerational issues—the *prospective* ecological needs of a society, that is, the plants, animals, and ecosystems that future generations may value.

As with all economic approaches to environmental problems, the use of CBA generally is most appropriate in those cases where economic efficiency, not environmental protection, is the ultimate policy goal. Thus cost-benefit analyses may continue to take the government down the present path of emphasizing the economic welfare to the nation of water resources projects while leaving environmental amenities vulnerable due to the inability to monetize their welfare benefits adequately during the project-planning stage. We are equally concerned that the emphasis on CBA will be used by the Office of Management and Budget to set budget policies. For example, OMB has set a minimum cost-benefit ratio to be eligible to be considered for inclusion in the President’s budget recommendations for the Corps of Engineers. That is an inappropriate use of the CBA and should not be allowed under the P&G.

Additionally, the WRC believes the proposal that was issued for comment in December of 2009 fails to meet the intent of congressional directives. The administration should substantially revised the USACE effort to update the P&G to ensure that the document reflects national priorities, encourages economic development, and protects the environment by maximizing sustainable economic development and seeking to avoid the unwise use of floodplains and flood-prone areas.

III. LEVEE SAFETY

Nearly five years after the devastation of Hurricane Katrina, and one year after the release of the National Committee on Levee Safety's Recommendations Congress has still not acted to create a National Levee Safety Program for federal or state levees. While the U.S. Army Corps of Engineers has begun work, there is no comprehensive, dependable catalog of the location, ownership, condition, hazard potential of levees in the United States. Flooding from Hurricane Katrina, which devastated the city of New Orleans in August 2005, demonstrated the need for consistent, up-to-date standards for levees based upon reliable engineering data on their location, function, and condition. Title IX of WRDA 2007 created the "National Levee Safety Program," but a robust, nationwide levee safety program remains an aspiration rather than a reality today.

In title IX, Congress established a "Committee on Levee Safety," which was to report to Congress by May 8, 2008, on the necessary elements of a levee safety program. The Committee submitted its "interim" report with the Office of Management and Budget (OMB) in January 2009.

The Committee made a number of important recommendations, including measures to create a hazard potential classification system as a first step in identifying and prioritizing hazard in levee-protected areas; to develop national levee safety standards that ensure the best engineering practices are available and implemented throughout the nation at all levels of government; to develop risk guidelines in order to reduce identified risks; and address growing concern over liability for damages resulting from levee failures through measures aimed at reducing the potential liability of engineering firms and government agencies that perform engineering services for levee systems (e.g. inspections, evaluations, design, construction administration, certification, or flood control).

Regardless of the status of the Committee's report, Congress should enact legislation to establish a national levee safety program that is modeled on the successful National Dam Safety Program and that adopts many of the recommendations of the Committee on Levee Safety. In a related area, Congress should examine the Federal Emergency Management Agency "certification" rule for levees, which requires the endorsement of a Professional Engineer, requires a judgment that a levee meets a minimum level of flood protection under the National Flood Insurance Program (NFIP). In turn, FEMA must verify that all levees recognized as providing protection from the base flood meet the requirements outlined in 44 C.F.R. 65.10 (b). Congress should direct FEMA to amend the rule to change the requirement from certification to "NFIP evaluation." The term NFIP evaluation is preferred over the present "certification" requirement to make it clear that an evaluation is merely a judgment that the levee system is in conformity with the requirements of NFIP regulations.

IV. WATERSHEDS AND FLOODPLAINS

The WRC supports basin-wide water resources management. The nation must plan and regulate water on a watershed basis to ensure the integration of programs and goals across political boundaries. WRC believes that effective watershed management is

facilitated when the government, the public and the private sector work collaboratively on this issue. Federal legislation defining the goals and standards for watershed managers should permit flexibility and accommodate regional needs.

Furthermore, the diverse nature of these problems suggests that top-down management and standard setting is an inappropriate way to deal with them. Using the watershed approach, all levels of government, the public and private industry are encouraged to participate in the decision-making and implementation process. In this way, management actions which reflect local and regional viewpoints are inherently incorporated in watershed policy.

Additionally, WRC supports the protection of natural floodplains and the concept of building disaster-resistant communities consistent with sustainable development while holding paramount the public's safety, health, and welfare. We urge governments at all levels to adopt proactive floodplain management policies, particularly in vulnerable coastal lowlands and river bottoms, and supports creative partnering between federal, state and local governments to adopt floodplain management policies and to fund the design and implementation of floodplain management policies and flood mitigation projects in a timely manner.

We believe the development or significant redevelopment of communities below sea level or in high-risk, flood-prone areas is inherently unsustainable and puts the public at unnecessary risk for loss of life and property.

Potential floodplain management tools include education and public information, land-use management, such as zoning, early warning systems and possible reservoir pre-releases, flood-proofing and elevating buildings, acquisition and relocation options, preservation of natural floodplains and open space, and emergency preparedness. Potential structural flood mitigation tools include levees, flood control dams, urban detention and retention basins, channelization, flood walls and sea walls. The multiple-use of flood prone areas and flood mitigation facilities should be pursued, including river restoration, wetland restoration, aquifer recharge, improvements in habitat, ecosystems, and water quality, recreation and open space use, and incorporation of floodplains into comprehensive watershed management programs.

Development and associated infrastructure in flood-prone areas has increased rapidly as people are attracted to historically fertile floodplains and coastal areas. Even though the benefits of preserving the natural floodplains as flood storage areas and wildlife habitat have been recognized, the floodplains continue to be developed and new inhabitants are subjected to periodic flooding and related devastation, as shown by Hurricanes Katrina and Rita. People living and working in flood prone areas often have developed a false sense of security. Once a flood occurs, residents and businesses often expect government to reduce or eliminate the risk of flooding through large capital projects. These populations need the protection of an efficient floodplain management program implemented before the flood occurs. By recognizing the likelihood of future flooding and the beneficial aspects of the natural floodplain, areas can be protected and communities can become disaster resistant.

V. WATER RESOURCE PRIORITIES REPORT

Given the persistence of serious floods over the past few years and the prospect of an increase of the risks associated with flooding, the failure to implement Section 2032 is unacceptable. However, this inaction is due to the failure of Congress to appropriate funds the Corps needs and has requested. This section asks for a report on the vulnerability of the United States to flooding, an assessment the extent to which Federal programs either are reducing risk or may be adding to risk, and proposals to change Federal programs so they reduce risks to human life and property in different regions of the country.

The need for risk assessment – which the title of this section inadequately reflects – is obvious. Section 2032 of WRDA 2007 provides the Corps with the direction and authority to look at risk assessment and risk reduction in the broadest and yet most practical approach imaginable. The implementation of this provision is long overdue.

VI. SEDIMENT MANAGEMENT

Section 2037 of WRDA 2007 made a major step in the right direction by providing the Corps of Engineers with a regional sediment management authority to accomplish the objectives of coordinating projects and their impacts. However, it is severely limited in that it only applies (a) where there is a federal navigation project, and (b) where there is sufficient sand available from the dredging of that project to meet the regional water resource planning and management needs. This restriction hamstring non-federal interests and the Corps in making sure the multiple purposes of reducing coastal hazards, using adaptive management for existing projects, coordinating new and existing water resource projects to save significant taxpayer costs, and assuring that the impacts of planned or existing projects have a beneficial, rather than a harmful, impact on environmental resources. The restriction contained in Section 2037 also limits affected stakeholders from having input into the planning and management of federal water resource projects.

The Corps issued guidance on the program in April 2008.

VII. NATIONAL SHORELINE EROSION CONTROL DEVELOPMENT PROGRAM

This program was established by Section 227 of WRDA 1992. It is designed to test new technologies that will improve or reduce the cost of federal beach restoration projects. There are testing sites in Cape May Point, NJ; Ventura, CA; Miami-Dade County, FL; Hawaii; Jefferson County, TX; two in Great Lakes states; and two more in California.

Section 2038 of WRDA 2007 contains important modifications to the program. For example, the original “Section 227” program did not permit the Corps to cost-share these projects with local governments. In addition, where the technology was demonstrated to work, Section 227 did not permit the technology to be seamlessly integrated into an

existing Federal beach restoration projects. These weaknesses have been corrected in Section 2038.

Section 2038 moves this program under the Section 103 Continuing Authorities Program for small shoreline protection projects. The more pressing issue is the lack of implementation guidance for Section 2038. The old Section 227 program apparently remains in force until the guidance is adopted by the Corps. This leaves both the Corps' Coastal Hydraulics Laboratory, which administers the program, and local project sponsors and firms that wish to bid in the competitive process for designs of new technology in limbo.

The changes made in Section 2038 were designed to make this program more attractive to federal taxpayers and local sponsors. Apparently the Corps of Engineers feels this is a low-priority issue and has, therefore, issued no guidance. However, this is an important program. Coastal areas of the nation are at risk from serious storms that endanger lives and property. Europe, Australia, New Zealand and other nations have done far more than the United States to test new beach restoration technologies to fulfill their coastal stewardship responsibilities. They have done far more than the U.S. to test new technologies that will reduce the cost and improve the effectiveness of beach restoration projects. We cannot afford the lack of implementation guidance for Section 2038 to stall this critical program.

VIII. PEER REVIEW

Peer review is a documented, critical review of a specific agency scientific or technical work product. The review is conducted by qualified individuals (or organizations) who are independent of those who performed the work, and who are collectively equivalent in technical expertise to those who performed the original work.

Peer review is conducted to ensure that activities are technically supportable, competently performed, properly documented, and consistent with established quality criteria. It involves an in-depth assessment of the assumptions, calculations, extrapolations, alternate interpretations, methodology, acceptance criteria, and conclusions pertaining to the specific major scientific or technical work product and of the documentation that supports them. Peer review may provide an evaluation of a subject where quantitative methods of analysis or measures of success are unavailable or undefined such as research and development.

In 2006, the Civil Works Directorate of the U.S. Army Corps of Engineers (USACE) requested the American Society of Civil Engineers (ASCE) and ASCE's External Review Panel (ERP) to conduct a formal analysis of the Corps' peer review practices for engineering documents prepared in the feasibility study phase of water resources projects authorized by Congress. The ERP was formed to provide an independent review of the Corps' Interagency Performance Evaluation Task Force charged with assessing the Southeast Louisiana Hurricane Protection System (HPS) during and following Hurricane Katrina.

ASCE concluded that the USACE review practices did not protect the public health, safety, and welfare against the catastrophic failure of water resources projects designed and constructed by the Corps because the Corps reviews 1) were discretionary; 2) were not triggered by sound engineering principles; 3) did not have a mechanism to gauge their fidelity; and 4) contained vague processes for selecting reviewers. ASCE recommended that the Corps modify the circulars and establish peer review policies in accord with those recommendations.

In section 2034 of WRDA 2007, Congress directed the Corps of Engineers to conduct independent peer reviews of a limited number of water resources and other engineering projects. The mandatory reviews are to be carried out at projects that cost a minimum of \$45 million, whenever a governor of a state requests an independent peer review, or whenever the Secretary determines that a project is controversial over the scope of the project and other considerations, including projects expected to have “minimal life safety risk.”

In January 2010, USACE issued an “engineering circular” entitled Civil Works Review Policy pursuant to section 2034 of WRDA 2007. The document replaces the 2005 policy that was criticized by ASCE. Although the new policy is faithful to the letter of section 2034 and an improvement over the earlier version, it contains the unjustified exemptions added by Congress and follows a process like that identified in our previous discussion of the P&G that could potentially undermine the integrity of the review process and thus result in projects that threaten public safety.

Section 2034 allows too many USACE projects to escape rigorous independent peer review by outside experts intended to protect public safety. Section 2034 should be amended to eliminate the exceptions to outside peer review. The law should require an independent peer review for *every* project—regardless of its cost or controversial nature—where performance is critical to the public health, safety and welfare; where reliability of performance under emergency conditions is critical; when using innovative materials, techniques, or design methods; where redundancy in the design is lacking; or that has unique construction sequencing or a short design construction schedule.

IX. CENTERS OF PLANNING EXPERTISE

In 2003, the Corps established via an internal directive six Centers of Planning Expertise that were intended to provide specialized talent to enhance and supplement the capabilities of districts. Since 2006, coastal communities have made extensive use of the National Planning Center for Coastal & Storm Damage based in the North Atlantic Division.

Just as the other Centers, what we refer to as the Coastal PCX operates as a virtual center with a “staff” composed of a few top experts in that Division who can call on the expertise of other specialists in Divisions, Districts, and other offices and centers of the Corps throughout the nation. This is critical given the fact that not every Corps district located along the coast can have the staff time or the expertise to conduct feasibility

studies in a manner that meets the standards required by WRDA 2007 and internal Corps directives that preceded that legislation.

As important as these Centers are, they operate without a budget. The Coastal PCX uses Division funds as well as small amounts from the feasibility studies for which their help is called just to meet travel expenses. The lack of funding also means that the PCX is unable in most cases to use District experts because District personnel are paid out of the studies being conducted by that District.

Frankly, the Coastal PCX has operated without the level of support WRC would like to see from the Corps leadership. Therefore, we were pleased when Section 2033(e) of WRDA 2007 provided legislative authorization for the Centers of Expertise. Unfortunately, the only “implementation guidance” for this provision was a March 12, 2009, letter from the Assistant Secretary of the Army for Civil Works to the Deputy Commanding General for Civil and Emergency Operations requesting an “update briefing on how each of the Centers is currently operating and an assessment of their capabilities, needed improvements, and further funding requirements.”

This lack of effort is symptomatic of the difficulty Corps leadership has in understanding the need for these Centers of Expertise. For at least the Coastal PCX, it is a need that goes far beyond their role in the prescribed internal review process. Feasibility studies for beach projects take a minimum of 10 years before internal, let alone, external reviews. The Coastal PCX has been involved in studies ranging to Massachusetts to North Carolina and onto Louisiana, Texas and California. Without their active assistance, the time and cost of repairing mistakes in these studies that could have been avoided is daunting to local sponsors at best and a deal-killer at worst.

Unfortunately, not only is Corps Headquarters not fully aware of the role of the Coastal PCX, but Corps Districts are extremely reluctant to ask for their assistance. In more than once case, Districts have resisted the request of local study sponsors to have the Coastal PCX meet with them to discuss the progress of the study and issues that may be raised during the review process. The process for explaining to the Divisions and Districts the role of these Centers, the reward they will get when they ask for assistance and the means by which they and/or the local sponsors can make that request should be the meat of the Section 2033(e) implementation guidance, not a letter from the ASA (CW) asking for an update on the Centers.

Thank you, Mr. Chairman. This concludes our testimony. I would be happy to answer any questions that you may have.

Members of the Water Resources Coalition

American Society of Civil Engineers
Associated Equipment Distributors
Associated General Contractors of America (AGC)
American Council of Engineering Companies
American Public Works Association
American Shore and Beach Preservation Association
Association of California Water Agencies
Atlantic Intracoastal Waterway Association
Coast Builders Coalition
The Everglades Trust
Dredging Contractors of America
Florida Inland Navigation District
Marlowe and Company
Missouri Corn Growers Association
National Stone Sand & Gravel Association
Oregon Water Resources Congress